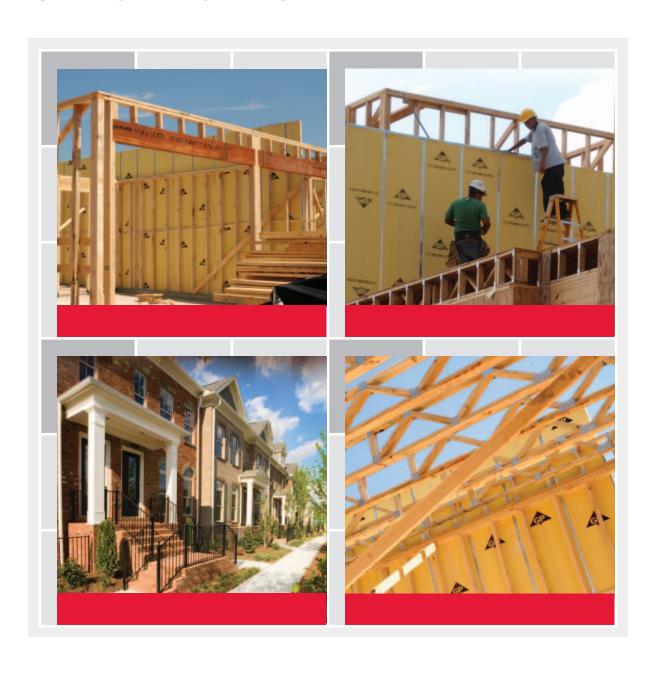
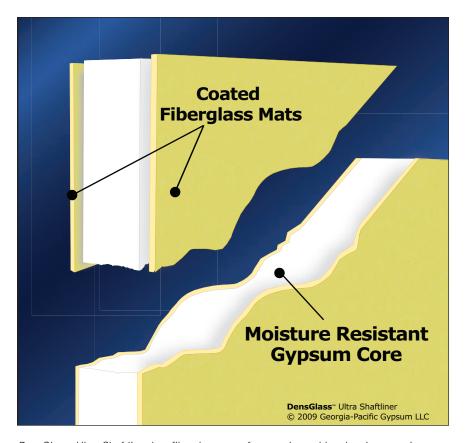


MOISTURE- AND MOLD-RESISTANT HIGH PERFORMANCE SOLUTIONS FOR AREA SEPARATION WALLS





Product Overview



DensGlass™ Ultra Shaftliner has fiberglass mats for superior mold and moisture resistance compared to paper-faced shaftliners.

- Paperless fiberglass mats eliminate a potential food source for mold and may reduce remediation and scheduling delays associated with paper-faced shaftliners.
- Replaces traditional paper-faced shaftliner in area separation wall systems.
- Backed with a 12-month limited warranty against in-place weather exposure damage (delamination, deterioration and decay)*.

*For complete warranty, visit www.gpgypsum.com

When tested, as manufactured, in accordance with ASTM D 3273, DensGlass Ultra Shaftliner panels scored a 10, the highest level of performance for mold resistance under the ASTM D 3273 test method.

The score of 10, in the ASTM D 3273 test, indicates no mold growth in a 4-week controlled laboratory test. The mold resistance of any building product when used in actual job site conditions, may not produce the same results as were achieved in the controlled, laboratory setting. No material can be considered mold proof. When properly used with good design, handling and construction practices, Dens™ Brand gypsum products provide increased mold resistance compared to standard paper-faced wallboard.

DensGlass Ultra Shaftliner is listed as a GREENGUARD microbial resistant product by a leading third-party organization, GREENGUARD Environmental Institute. This listing means DensGlass Ultra Shaftliner, which features fiberglass mats instead of the paper facings used on the surface of traditional gypsum board products, resists mold growth. The microbial resistant test is based on ASTM Standard D 6329-98, a testing standard set by ASTM International, which develops testing guidelines and procedures for building materials, products, systems and services.

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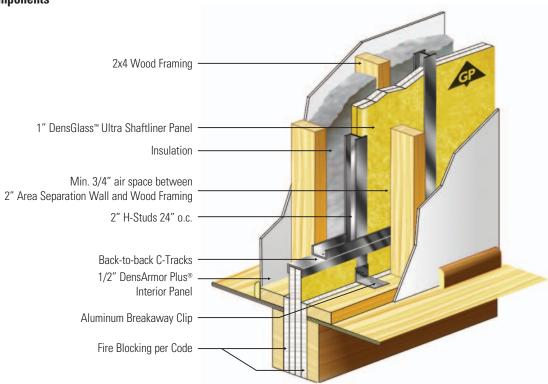


The Georgia-Pacific Gypsum Area Separation Wall assembly is designed for use in multi-family, multi-story townhouses as a firewall with a total height up to 68 feet (page 14, Limitations). Because it is constructed using gypsum board, the assembly is easy to erect and secure, meets all building code requirements, and provides economical fire protection and sound control.

The Area Separation Wall is constructed once the framing for one townhouse unit is complete and prior to the construction of the adjacent unit. The assembly is constructed at the foundation and continues either to the underside of the protected roof sheathing or through the roof to form a parapet. The assembly is linked to the adjacent framing with aluminum breakaway clips that allow for collapse of the fire-exposed unit without collapse of the solid Area Separation Wall.

Because the assembly will be exposed to the elements during construction, Georgia-Pacific Gypsum offers increased protection to the owner, builder and architect with a moisture- and mold-resistant shaftliner panel — DensGlass^M Ultra Shaftliner.





The Georgia-Pacific Gypsum Area Separation Wall is constructed using 1-inch thick, 24-inch wide DensGlass Ultra Shaftliner panels, 25-gauge steel H-studs, 25-gauge steel C-track and 2" aluminum breakaway clips.

DensGlass Ultra Shaftliner panels consist of a moisture resistant core with coated fiberglass mats front and back instead of paper facings like traditional shaftliner panels. DensGlass Ultra Shaftliner panels are covered by a 12-month in-place exposure limited warranty against delamination, deterioration and decay and a 5-year limited warranty against manufacturing defects.

Fire Testing and Building Code Compliance

The Georgia-Pacific Gypsum Area Separation Wall has been fire tested to ASTM E 119 and CAN/ULC S-101. The Georgia-Pacific Gypsum 2-hour fire-rated Area Separation Wall assembly, constructed using DensGlass Ultra Shaftliner panels, is listed by Underwriters Laboratory (UL), Underwriters Laboratories of Canada (ULC) and Warnock Hersey International (WHI/ITS) and meets the requirements of the 2006 International Building Code (IBC) Section 705 "Party Walls," and Section 705, "Fire Walls." The Georgia-Pacific Gypsum Area Separation Wall assembly is listed in the UL Fire Resistance Directory under UL Design U 373, the ULC Fire Resistance Directory ULC Design No. W 312 and the WHI Fire Resistance Directory under WHI GP/WA 120-04. For copies of these listings, please contact Georgia-Pacific Gypsum Technical Services at 1-800-225-6119.



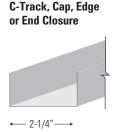
Installation Instructions

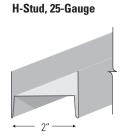
The Georgia-Pacific Gypsum Area Separation Wall is constructed once the framing for one townhouse unit is complete and prior to the construction of the adjacent unit. The solid 2" Area Separation Wall is constructed a minimum 3/4" away from the adjacent framing, which is typically constructed from wood. In many cases the area separation wall is positioned 1" away from the wall framing to accommodate the 1" DensGlass™ Ultra Shaftliner panels used as fireblocking between the floor levels. The UL Design U373 Area Separation Wall assembly was evaluated at a height up to 44' and the WHI/ITS GP/WA 120-04 Area Separation Wall assembly was evaluated at a height up to 68'.

Erecting the 2" Area Separation Wall

- 1. Position 2" C-Track a minimum 3/4" from the framed wall of the adjacent unit. Fasten C-Track to foundation with fasteners spaced a maximum of 24" o.c. When specified, apply a minimum 1/4" bead of acoustical sealant under the C-Track to maximize acoustical privacy. Run the C-Track to the end of the foundation. In case of offset units, see 15 under Special Conditions.
- 2. Start the wall with a vertical C-Track at one end. Install two 1" shaftliner panels vertically with either side facing out* into the C-Track at one end of the area separation wall. Install the H-Stud over the double beveled edges of the shaftliner panels and continue alternately until the wall has reached the opposite end of the foundation. Terminate the wall using a C-Track. The vertical C-Tracks at each end of the wall should be attached in the corners to the horizontal sections of C-Track using a minimum of one 3/8" minimum length pan head screw.
 - * Note: some authorities may require labeling to be visible.
- 3. Cap the first section of the Area Separation Wall with a C-Track and attach to the vertical C-Track in the corners using a minimum of one 3/8" minimum length pan head screw.
- 4. Breakaway clips span the minimum 3/4" air space and provide a fusible link between the H-Studs and the adjacent wall framing. Attach the breakaway clips to the flange of the H-Stud using a minimum of one 3/8" minimum length pan head screw and to the adjacent wood framing using a minimum of one 1" minimum length drywall screw.
 - When the UL Design U373 Area Separation Wall assembly is specified, the breakaway clips should be located vertically at each floor level (10'0" o.c.) and horizontally on every H-Stud (24" o.c.). When the total height of the Area Separation Wall exceeds 23', breakaway clips shall be installed every 5'0" for the lower 20' and every 10'0" for the upper 24'0" of the wall assembly. Breakaway clips are installed on both sides of the Area Separation Wall.
 - When the WHI/ITS Design WHI GP/WA 120-04 Area Separation Wall assembly is specified, the breakaway clips should be located vertically at each floor level (10'0" o.c.) and horizontally on every other H-stud (48" o.c.). When the total height of the Area Separation Wall exceeds 20'0", breakaway clips shall be installed vertically every 8'0" maximum for the lower 20'0" and every 10'0" maximum for the upper 48'0" of the wall assembly.
- 5. Fireblocking is installed on both sides of the Area Separation Wall at each floor level as defined in Section 717.2.1 of the 2006 IBC. (See details section). For approved fire-blocking materials, see Special Conditions, Item 8.
- 6. To continue the wall, install a C-Track over the C-Track used to cap the lower section, placed back to back and attached together with two 3/8" pan head screws at ends and spaced 24" o.c. Stagger back to back C-Track joints a minimum of 12".
- 7. If a parapet is not specified, see Special Conditions, Item 11 for two code-compliant methods for installing a gypsum board roof underlayment.
- 8. Once the 2" Area Separation Wall is erected, construction of the adjacent interior wall framing can begin. Breakaway clip and fire-blocking installation is identical for both sides of the 2" Area Separation Wall.









Special Conditions

- 1. When an H-Stud does not align with the adjacent wood framing, insert blocking between wood framing members and attach breakaway clip to blocking using one 1-1/4" drywall screw and to the H-Stud using a minimum of one 3/8" minimum length pan head screw.
- 2. If gaps are present between back-to-back C-Tracks, caulk using appropriate fire caulking material.
- 3. When wall framing is spaced greater than 1" away from the solid 2" Area Separation Wall, aluminum clips with longer legs are permitted. Contact clip manufacturers including CLARKWESTERN Building Systems and Telling Industries for modified clips. Additional wood blocking can be added between the wood studs to provide clip support. Space wood blocking minimum 3/4" away from Area Separation Wall.
- 4. The solid 2" Georgia-Pacific Gypsum Area Separation Wall is non-load bearing. The adjacent framed wall can be designed as load bearing.
- 5. The wall located adjacent to the solid 2" Area Separation Wall, a minimum of 3/4" away, can be constructed of wood or steel framing. When constructed using steel framing, use a minimum of one 3/8" minimum length pan head screw to attach the aluminum breakaway clip.
- 6. The support walls located adjacent to, and on each side of the solid 2" Area Separation Wall protect and maintain the required 3/4" air space, offer increased acoustical privacy, and provide necessary aesthetics. These walls can be designed as load bearing and readily accommodate code compliant electrical and plumbing systems. These systems should not impede the required 3/4" air space. Apply acoustical sealant around penetrations for maximum acoustical privacy.
- 7. The required 3/4" air space can be eliminated if the metal framing is covered on both faces with 6" wide, 1/2" DensArmor Plus® Fireguard® Type C or 1/2" ToughRock® Fireguard® Type C or 5/8" ToughRock Fireguard Type X or 5/8" DensArmor Plus Fireguard Type X gypsum board strips. The gypsum board strips are attached with 1" drywall screws spaced 12" o.c. to the metal framing. This primarily occurs in accessible attic areas. Attic areas not accessible do not require the 6" wide gypsum board strips.
- 8. The required fireblocking between floor levels may consist of 2" nominal lumber or two thicknesses of 1" nominal lumber with broken lap joints or one thickness of 0.719" wood structural panel with joints backed by 0.719" wood structural panel or one thickness of 0.75" particleboard with joints backed by 0.75" particleboard. Gypsum board, including 1" DensGlass™ Ultra Shaftliner and 5/8" DensArmor Plus interior panel, batts or blankets of mineral wool or fiberglass or other approved materials installed in such a manner as to be securely retained in place shall be permitted as an acceptable fireblock. (Section 717.2.1, 2006 IBC)
- 9. The Georgia-Pacific Gypsum Area Separation Wall assembly can be constructed with or without a parapet.
- 10. At the intersection of the solid 2" Area Separation Wall and the underside of the structural roof sheathing, cut liner panels at an angle to provide a tight fit to the structural sheathing. The 2" Area Separation Wall is not required to be capped using a C-Stud. Where the shaftliner panels are not tight to the structural sheathing, apply an approved fireblocking material (see Special Conditions, #8) to both sides of the Area Separation Wall.
- 11. There are two code-compliant methods for installing a fire-resistant roof underlayment: the ledger strip method and the partial roof underlayment method. In the ledger strip method, one layer of 5/8" DensArmor Plus Fireguard Type X interior panel or 5/8" ToughRock Fireguard Type X gypsum board is placed 4' on both sides of the Area Separation Wall. The gypsum board is cut to fit tight between the roof framing members. Nominal 2" x 2" wood ledger strips hold the gypsum board snug to the underside of the roof sheathing and flush with the top of the roof framing. The ledgers are attached to the roof framing and form a continuous strip. The second method is using fire treated plywood at least 4' on both sides of the Area Separation Wall.
- 12. Penetrations through the solid 2" Georgia-Pacific Gypsum Area Separation Wall should be protected in accordance with the 2006 IBC Sections 705.9 and 712. For specific installation details consult UL category XHEZ Through-penetration Firestop Systems.
- 13. Size and protection of openings in the solid 2" Georgia-Pacific Gypsum Area Separation Wall shall be in accordance with the 2006 IBC, Section 705.8. When the Georgia-Pacific Gypsum Area Separation Wall is designed as a Party Wall ("Any wall located on a property line between adjacent buildings, which is used or adapted for joint service between the two buildings") as listed in the 2006 IBC, Section 705.1.1; openings are not permitted.
- 14. For specialized end-use areas, such as bathrooms, the adjacent framed walls can be covered with DensShield® Tile Backer from Georgia-Pacific in lieu of standard paper-faced gypsum board or fiberglass mat-faced interior panels.
- 15. An offset occurs when one unit extends past the front or back edge of an adjacent unit. The H-studs of the Area Separation Wall are not designed for hanging sheathing and cladding so planning is required before construction begins. There are two ways to deal with the offset. The first option is to pour enough concrete so that the Area Separation Wall and adjacent 2x4 wall can extend to the furthest most point. Sheathing and cladding can then be installed to the 2x4 wall. The second option is to terminate the Area Separation Wall at the end of the shared wall and then construct a one hour wall to the end of the offset unit. Both scenarios are shown in the Details section of this brochure.



System Assemblies - 2-Hour Ratings

Construction Detail	Assembly Components	STC	Test Reference
	Two layers 1" DensGlass™ Ultra Shaftliner inserted in H-Studs 24" o.c. Min. 3/4" air space between liner panels and adjacent wood or metal framing.	60	UL DESIGN U373 ULC W312 WHI GP/WA 120-03 RAL TL89-383
	Two layers 1" DensGlass Ultra Shaftliner inserted in H-Studs 24" o.c. Min. 3/4" air space on both sides must be maintained between liner panels and adjacent framing.	60	UL DESIGN U373 ULC DESIGN W312 WHI GP/WA 120-04 Based on RAL TL89-383
	Sound Tested with 2 x 4 stud wall with 1/2" DensArmor Plus® interior panel each side of assembly and 3-1/2" fiberglass insulation in stud space both sides.		
	Part. Thickness: 3"	38 est.	WHI 495-0743
Printed of Chair Conference and Chair Chai	Weight per Sq. Ft.: 9.5		
	Two layers 1" DensGlass Ultra Shaftliner inserted in H-Studs 24" o.c. Metal framing covered using 6" wide or 1/2" DensArmor Plus Fireguard® Type C Interior Panel or 1/2" ToughRock® Fireguard® Type C gypsum board.		

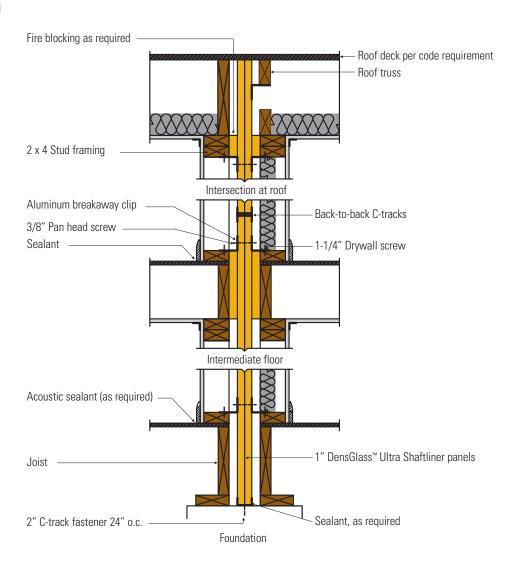
Breakaway clip facings and height of wall differ between UL Design U373 and WHI GP/WA 120-04.



Details Ground Level ©2009, Georgia-Pacific Gypsum Basement 7'6" - 8' High Poured Concrete Wall **B.** Exterior Wall Intersection A. Roof-Ceiling Parapet Cap Fire Blocking Exterior Wall 1/2" DensArmor Plus® Panel or As required by code 2 Sheets of 1/2" ToughRock® gypsum board 1" DensGlass™ Ultra Fiberglass Roofing 3/4" minimum Flashing Shaftliner (Firewall) **Batt Insulation** Air Space C-Shaped Metal Track Set in Sealant 2" H-Stud to Create A Breakaway Clip 3/4" minimum Smoke-Tight Joint Air Space (as required) Fiberglass Cladding 2 Sheets of 1/2" DensArmor Plus® Panel or Batt Insulation 1" DensGlass™ Ultra 1/2" ToughRock® gypsum board Shaftliner 1/2" DensArmor Plus Panel or (Firewall) 1/2" ToughRock® Wallboard C. Floor Intersection D. Wall-to-Slab 2 Sheets of Double C-Shaped 2 Sheets of ____ 1" DensGlass™ Ultra 1" DensGlass™ Ultra Metal Track Screwed Shaftliner Back to Back (Firewall) Shaftliner (Firewall) Subfloor 3/4" minimum 1/2" DensArmor Plus Panel Air Space or 1/2" ToughRock® gypsum board Fire Blocking Space for Acoustical Fiberglass Sealant (as required) (as required by code) Batt Insulation 2x4 Plate Floor Joist Тор 1/2" DensArmor Plus® Panel C-shaped Space for Acoustical Plate (Ceiling) or 1/2" ToughRock® Breakaway Clip Metal Track Sealant (as required) gypsum board Fiberglass Concrete Slab Batt Insulation 3/4" minimum Air Space

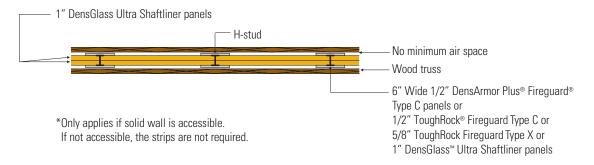


Full Wall

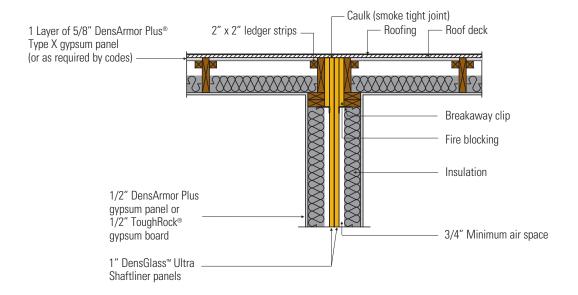




Attic - Adjacent to Trusses*

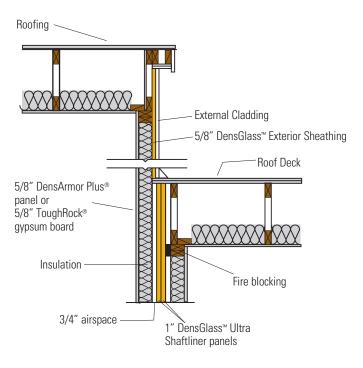


Typical Roof Junction

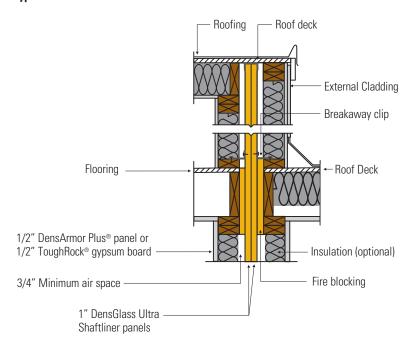




Typical Offset Roof—1 Hour

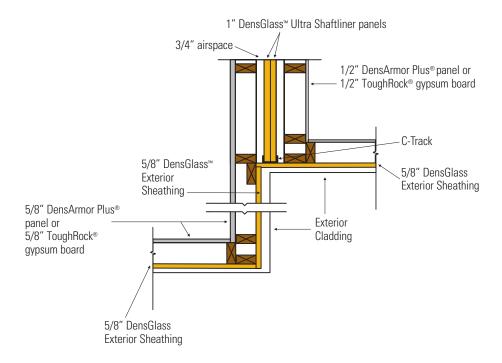


Typical Offset Roof—2 Hour

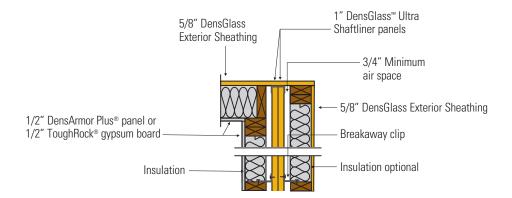




Typical Horizontal Wall—1 Hour

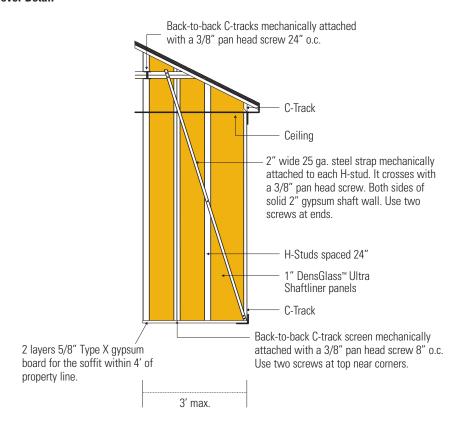


Typical Offset Wall—2 Hour





Cantilever Detail





Architectural Specifications

Part 1 - General

1.0 Description of Work

The type of work specified herein includes, but is not limited to, Area Separation Wall systems.

1.1 Quality Assurance

Fire Resistance Ratings: Provide fire resistance rated assemblies identical to those indicated by reference to UL (Underwriters Laboratories), ULC (Underwriters' Laboratories of Canada) or WHI (Warnock Hersey International) ITS numbers or in listings of other agencies acceptable to authorities having jurisdiction.

1.2 Qualifications

All area separation wall shaftliner and gypsum board and joint treatment materials shall be manufactured or provided by Georgia-Pacific Gypsum LLC. The steel framing components and aluminum breakaway clips shall be provided by a steel manufacturer authorized by Georgia-Pacific Gypsum LLC unless otherwise indicated. All materials shall be installed in accordance with printed installation instructions as required by the testing agency.

System must be constructed to meet any applicable code requirements.

1.3 Submittals

Product Data: Submit Georgia-Pacific Gypsum's descriptive literature for each area separation wall component indicating materials, dimensions, finishes and other data required to show compliance with the specifications.

1.4 Delivery, Storage and Handling

Deliver materials in original packages, containers or bundles bearing Georgia-Pacific Gypsum's brand name and identification. Product also may be wrapped in temporary factory-applied plastic packaging (plastic wrap) that **must** be removed upon receipt. **Failure to remove the plastic shipping covers and plastic wrap may result in entrapment of condensation or moisture, which may cause application problems.**

Store materials flat, inside, under cover. Keep materials dry and protect from weather and damage from construction operations and other causes.

Handle area separation wall components to minimize damage to edges, ends or surfaces. Protect metal accessories, framing and trim from bending and damage.

1.5 Project Conditions

Environmental Requirements: Comply with the requirements of gypsum board application standards and recommendations of Georgia-Pacific Gypsum for environmental conditions before, during and after application of DensGlass™ Ultra Shaftliner and ToughRock® gypsum board or DensArmor Plus® High-Performance Interior Panel.

Part 2 - Products

2.0 Materials

A. Metal Framing:

- 1. Steel H-Studs, minimum 25-gauge, galvanized, and conforming to applicable sections of ASTM C 645. Lengths as required.
- 2. C-Track, minimum 25-gauge, galvanized, in 10' lengths.
- 3. Aluminum breakaway clips, 2" x 2-1/2" x 0.063".
- B. Gypsum Board:
 - 1. Shaftliner: 1" DensGlass Fireguard® Type X Ultra Shaftliner panels conforming to ASTM C 1658 or ASTM C 1396. 24" wide with double beveled edges. Lengths as required.
 - 2. Gypsum board: 1/2" ToughRock® Fireguard® Type C gypsum board or 5/8" ToughRock Fireguard Type X gypsum board; 1/2" DensArmor Plus® Fireguard® Type C High-Performance Interior Panel or 5/8" DensArmor Plus® Fireguard® Type X High Performance Interior Panel meeting the relevant physical requirements of ASTM C 1396, ASTM C 36, ASTM C 1658 and ASTM C 1177.
- C. Fasteners: For 25-gauge framing, Type S screws.
- D. Miscellaneous Materials: Acoustical sealant.



Part 3 – Execution

3.0 General

Follow Georgia-Pacific Gypsum recommendations for installation of metal framing and gypsum board for area separation walls.

3.1 Installation

Foundation: Position 2" C-Track at floor and attach securely to foundation at ends and 24" o.c. Caulk under runner at foundation with min. 1/4" bead of acoustical sealant when specified to reduce noise transmission.

First Floor: Start the wall with a vertical C-Track at one end and install two DensGlass^M Ultra Shaftliner panels. Install H-Studs and insert DensGlass Ultra Shaftliner panels. Attach two thicknesses of 1" DensGlass Ultra Shaftliner vertically in C-Track with long edges in H-Stud. Continue installing H-Studs and shaftliner alternately until wall is complete. Attach horizontal C-Track to top of shaftliner panels, fastening flanges of C-Track at all corners on both sides of shaftliner with minimum of one 3/8" minimum length drill point screws.

Intermediate Floors: Attach C-Track to C-Track cap on wall below. Fasten C-Tracks together using two 3/8" minimum length screws at ends and 24" o.c. Fasten H-Studs to adjacent framing with aluminum breakaway clips. Attach breakaway clips to H-stud with a minimum of one 3/8" minimum length pan head screw and to adjacent wood framing with 1-1/4" drywall screw. Install fire blocking between solid wall system and adjacent framing at floor lines, bottom of truss line and any other locations according to code requirements. When the UL Design U373 Area Separation Wall assembly is specified, the breakaway clips should be located vertically at each floor level (10'0" o.c.) and horizontally on every H-Stud (24" o.c.). When the total height of the Area Separation Wall exceeds 23'0", breakaway clips shall be installed every 5'0" maximum for the lower 20" and every 10'0" maximum for the upper 24'0" of the wall assembly. Breakaway clips are installed on both sides of the Area Separation Wall. When the WHI/ITS Design GP/WA 120-04 Area Separation Wall assembly is specified, the breakaway clips should be located vertically at each floor level (10'0" o.c.) and horizontally on every other H-stud (48" o.c.). When the total height of the Area Separation Wall exceeds 20'0", breakaway clips shall be installed vertically every 8'0" maximum for the lower 20'0" and every 10'0" maximum for the upper 48'0" of the wall assembly.

Roof: Cut DensGlass Ultra Shaftliner panels and H-Studs to follow roof pitch. Fasten H-Studs to framing with an aluminum breakaway clip.

Fiberglass Insulation: Friction-fit fiberglass blanket insulation within cavities.

Interior Finish: Apply gypsum board as specified to wood studs with screws or nails in conventional manner.

3.2 Accessories

Joint System: Finish all face layer joints and internal angles of wood stud wall with ToughRock® joint treatment applied according to manufacturer's directions. Spot exposed fasteners on face layers and finish corner bead, control joints and trim as required.

Metal Trim: Where partition or ceiling terminates against masonry or other dissimilar material, apply metal trim over drywall edge.

Control Joints: Gap gypsum board behind joint and back with double framing. Attach control joint on both flanges along entire length of joint.

Limitations

Unsupported wall height between floors should not exceed 12 feet. May be used in buildings up to four stories. The UL Design U373 Area Separation Wall assembly was evaluated at a height up to 44' and the WHI/ITS Design WHI GP/WA 120-04 Area Separation Wall assembly was evaluated at a height up to 68'.

Service cutouts or through penetrations shall be installed and protected in accordance with the building code.

Do not install insulation in the system until the building has been properly closed in.

Provide for deflection of live-loaded floor assemblies by using relief joints or floating trim.



COMMONLY USED METRIC CONVERSIONS		
Gypsum Panel Thickness	Framing Spacing	
1/4 in. – 6.4 mm 1/2 in. – 12.7 mm	16 in. – 406 mm 24 in. – 610 mm	
5/8 in. — 15.9 mm 1 in. — 25.4 mm	Fastener Spacing 2 in. – 51 mm	
Gypsum Panel Width	2.5 in. – 64 mm	
2 ft. — 610 mm 4 ft. — 1219 mm 32 in. — 813 mm	7 in. — 178 mm 8 in. — 203 mm 12 in. — 305 mm	
Gypsum Panel Length	16 in. — 406 mm 24 in. — 610 mm	
4 ft. — 1219 mm 5 ft. — 1524 mm 8 ft. — 2438 mm 9 ft. — 2743 mm 10 ft. — 3048 mm	Temperature 40°F – 5°C 50°F – 10°C 125°F – 52°C	

12 ft. - 3658 mm

The Dens™ Brand of High-Performance Gypsum Products from Georgia-Pacific			
DensGlass™ Exterior Sheathing (formerly DensGlass Gold® Exterior Sheathing)	The original and universal standard of superior weather resistance, with a 12-month weather exposure limited warranty. Look for the familiar GOLD color.		
DensShield® Tile Backer	Acrylic-coated tile backer stops moisture at the surface. Lightweight and strong, built for speed on the job site. IBC/IRC Code Compliant. GREENGUARD listed for microbial resistance.		
DensDeck® Roof Boards	Fiberglass mat coverboard with a track record of resistance <i>against</i> wind uplift, hail, foot traffic, fire, moisture and mold, in a broad range of applications. Look for green DensDeck® Prime and DensDeck® DuraGuard too.		
DensGlass™ Ultra Shaftliner	Specially-designed panels for moisture-prone vertical or horizontal shafts, interior stairwells and area separation wall assemblies. 12-month weather exposure limited warranty. GREENGUARD listed for microbial resistance.		
DensArmor Plus® High-Performance Interior Panel	High-performance interior panel that accelerates scheduling because it can be installed before the building is dried-in. Six-month weather exposure limited warranty. GREENGUARD Indoor Air Quality Certified® for low VOC emissions. GREENGUARD listed for microbial resistance.		
DensArmor Plus® Abuse-Resistant Interior Panel (formerly DensArmor Plus® Abuse Guard®)	Same benefits as DensArmor Plus® High-Performance Interior Panel with added resistance to scuffs, abrasions and surface indentations. Ideal for healthcare facilities and schools. GREENGUARD Indoor Air Quality Certified® for low VOC emissions. GREENGUARD listed for microbial resistance.		
DensArmor Plus® Impact-Resistant Interior Panel (formerly DensArmor Plus® High Impact)	Even greater durability with an embedded impact-resistant mesh for the ultimate performance in high traffic areas. Ideal for healthcare facilities, schools and correctional institutions.		



SALES INFORMATION AND ORDER PLACEMENT

U.S.A. Midwest: 1-800-876-4746 West: 1-800-824-7503
 South: 1-800-327-2344 Northeast: 1-800-947-4497

CANADA Canada Toll Free: 1-800-387-6823 Quebec Toll Free: 1-800-361-0486

Georgia-Pacific Gypsum LLC Technical Hotline U.S.A. and Canada: **1-800-225-6119**



Some of our products have been certified by Scientific Certification Systems (SCS). SCS is an internationally recognized third-party evaluation, testing and certification organization. Its program spans a wide cross-section of the economy, including manufacturing and retailing, consumer products, the energy industry, and the home improvement and construction sectors. For details on specific Georgia-Pacific Gypsum products and plants, please contact our Technical Hotline at 800-225-6119.

TRADEMARKS

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UPDATES AND CURRENT INFORMATION

The information in this document may change without notice. Visit our website at www.gpgypsum.com for updates and current information.

LIMITATION OF REMEDIES AND DAMAGES

Unless otherwise stated in our written warranty for these products, our sole liability for any product claim shall be limited to reimbursement of the cost of repair or replacement of the affected product, up to a maximum amount of two times the original purchase price for the affected product. We shall not be responsible under any circumstances for lost profits, damage to a structure or its contents, or indirect, incidental,

special or consequential damages. Claims shall be deemed waived if they are not submitted to us in writing within ten (10) days after discovery of a product defect/circumstance giving rise to a claim.

CAUTION: For product fire, safety and use information, go to gp.com/safetyinfo.

DISCLAIMER: Our fiberglass mat products may contain recycled material with small traces of cellulose fiber in the core, which will not affect the overall product performance or characteristics.

HANDLING AND USE

CAUTION: This product contains fiberglass facings which may cause skin irritation. Dust and fibers produced during the handling and installation of the product may cause skin, eye and respiratory tract irritation. Avoid breathing dust and minimize contact with skin and eyes. Wear long sleeve shirts, long pants and eye protection. Always maintain adequate ventilation. Use a dust mask or NIOSH/ MSHA approved respirator as appropriate in dusty or poorly ventilated areas. For additional product fire, safety

and use information go to www.gp.com/safetyinfo or call 1-800-225-6119.

FIRE SAFETY CAUTION:

Passing a fire test in a controlled laboratory setting and/or certifying or labeling a product as having a one-hour, two-hour, or any other fire resistance or protection rating and, therefore, as acceptable for use in certain fire rated assemblies/ systems, does not mean that either a particular assembly/ system incorporating the product, or any given piece of the product itself, will necessarily provide one-hour fire resistance, two-hour fire resistance, or any other specified fire resistance or protection in an actual fire. In the event of an actual fire, you should immediately take any and all actions necessary for your safety and the safety of others without regard for any fire rating of any product or assembly/system.